

~~DOMONY, Andras, dr.~~

An account of the 2d Conference on Aluminum. Koh lap 96  
no. 7:334-336 JI '63.

1. "Kohaszati Lapok" szerkeszto bizottsagi tagja.

DOMONY, Andrus, dr., a mészaki tudományok doktora

Some more important research trends in the development of aluminum working and their achievements. Koh lap 96 no.8:349-357 Ag '63.

1. "Kohászati Lapok" szerkeszto bizottsagi tagja.

DOMONY, Andras, dr., a muszaki tudományok doktora

Tasks of the Aluminum Application Technology Center and its activity in 1964. Koh lap 98 no.3:125-128 Mr '65.

1. Technical Head, Aluminum Application Technology Center, Budapest, and Editorial Board Member, "Kohászati Lapok."

LEVARDI, Ferenc, dr.; OVARI, Antal; BUBICS, Gyorgy; DOMONY, Andras;  
LOMNICZI, Dezsó; GAGYI PALFFY, Andras, dr.; BENEDEK, Ferenc;  
KOVACS, Dezsó; MARTOS, Ferenc, dr.; DENES, Otto; SAFAR, Laszlo;  
TAMASY, Istvan, okleveles bányamérnök; POCZE, Laszlo; KREFFLY,  
Gabor; BOCSANCZY, Janos; SCHMIDT, Eligiusz Robert, dr.; KONRAD,  
Odon, dr.

An account of the November 27, 1964 Executive Committee Session  
arranged by the National Hungarian Mining and Metallurgic Society  
in Salgotarjan. Bany lap 98 no.3:203-212 Mr '65.

1. President, National Hungarian Mining and Metallurgic Society,  
Budapest (for Levardi). 2. Secretary General, National Hungarian  
Mining and Metallurgic Society, Budapest (for Ovari). 3. Editorial  
Board Member, "Bányászati Lapok" (for Gagyí-Pálffy, Benedek, Martos  
and Kreffly). 4. Deputy Head, Department of Mining Engineering  
of the Ministry of Heavy Industry, Budapest (for Tamasy).

L 46164-66 EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/JH

ACC NR: AP6034161.

SOURCE CODE: GE/0029/65/000/010/0599/0602

DOMONY, Andreas, NOCZOR, Stephan, and PALOVITS, Paul, of Budapest,

New Way for Improving the Quality of Non-Alloyed Aluminum Conductor Wires / This paper was presented at the Colloquium "Copper and Aluminum at the Materials for Electrotechnology" at the Research Institute for NE-Metals held in Leipzig, East Germany, Vol 10, No 10, Oct 1965, pp 599-602.

**Abstract:** Silicon contents of up to 0.11%, in conjunction with small concentrations of iron and/or copper cause an increase in electrical resistivity and mechanical properties. If the silicon content exceeds 0.20%, the admixture of iron decreases resistivity and increases plasticity; however, these effects can be partly alleviated by the admixture of copper. The beneficial effects of copper increase also the tolerance of the aluminum against the harmful effects of silicon content. Thus, by controlling the copper content, conductor wires can be made of aluminum batches of varying compositions.

Orig. art. has: 1 figure and 8 tables. [JPRS/

ORG.: none

TOPIC TAGS: electric wire, plasticity, mechanical properties, resistivity, aluminum wire, copper containing alloy, silicon containing alloy

SUB CODE:

11,20,13 / SUBM DATE: 17 Jun 65 / OTH REF: 010 / 00 00

L 47273-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JH

ACC NR: AP6034581

SOURCE CODE: HU/0014/65/098/009/0417/0420

DOMONY, Andras, Doctor of Technical Sciences, BOCZOR, Istvan, Candidate of Technical Sciences, and PALOVITS, Pal, Diplome Metallurgical Engineer, ORG: none

"Improving the Properties of Outdoor Transmission Lines Made from Light Metals" This paper presented at the Conference "Copper and Aluminum at the Materials for Electrotechnology" at the Research Institute for Nonferrous Metals held in Freiberg from 8 to 9 May 1965, Budapest, Kohasagati Lapok, Vol 98, No 9, Sep 1965, pp 417-420.

Abstract: Laboratory and plant experiments were conducted to establish the methods whereby the electrical and mechanical characteristics of aluminum lines containing < 0.11% silicon could be improved and to investigate whether processes could be developed by which satisfactory lines could be manufactured from aluminum containing higher concentrations of silicon. It was found that both aims could be achieved by including small amounts of copper into the alloy. The amount of copper to be added depends on the initial characteristics of the alloy and on the extent and kind of improvements required. Orig. art. has: 6 tables. /JPRS/

TOPIC TAGS: aluminum base alloy, silicon containing alloy, copper containing alloy

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 005/OTH REF: 005

Card 1/1

UDC: 669.716.621.315.1

L 16501-66 EWP(t) IJP(c) JD

ACC NR: AP6008578

SOURCE CODE: HU/0014/65/098/006/0286/0287

AUTHOR: Domony, Andras (Doctor of technical sciences); Rott, Nandorne (Doctor)

ORG: none

TITLE: Aluminum<sup>1.5</sup> supply and aluminum consumption of the socialist countries on<sup>2.2</sup>  
the basis of published statistical data<sup>6</sup>

SOURCE: Kohaszati lapok, v. 98, no. 6, 1965, 286-287

TOPIC TAGS: aluminum, import export, industrial production

ABSTRACT: The aluminum production, aluminum import (by countries of origin), aluminum consumption, and aluminum consumption per capita was presented in tabulated form for Bulgaria, Czechoslovakia, North Korea, Yugoslavia, China, Poland, German Democratic Republic, Rumania, Hungary, and USSR on the basis of statistics published both in Eastern and Western periodicals and reports. Orig. art. has: 7 tables. [JPRS]

SUB CODE: 11, 05 / SUBM DATE: none / OTH REF: 003 / SOV REF: 001

2

Card 1/1 SM

L 34211-66 EWP(t)/ETI IJP(c) JD/JH

ACC NR: AP6026088

SOURCE CODE: HU/0014/66/000/003/0125/0131

AUTHOR: Domony, Andras (Doctor of technical sciences)

ORG: none

TITLE: Casting and rolling techniques in the aluminum industry

SOURCE: Kohassat: lapok, no. 3, 1966, 125-131

TOPIC TAGS: metallurgic industry, aluminum, metal casting, metal rolling, metallurgic machinery, rolling mill, blast furnace, industrial management, wire product

ABSTRACT: A general discussion was made of the casting and rolling techniques employed abroad in the aluminum industry. The various techniques were classified in a novel schema and discussed with special emphasis on economical factors. On the basis of the data presented, it was recommended that some of these techniques be implemented by the Hungarian aluminum industry. Specifically, it was considered that apparatus for the casting and rolling of rough aluminum wire be installed and a medium-size rolling mill be erected near a blast furnace. The economies that could be realized by these measures were estimated. Orig. art. has: 6 tables.

[JPRS: 36,646]

SUB CODE: 13, 05 / SUM DATE: none / ORIG REF: 001 / OTH REF: 006

Card 1/1 BLG



L 09246-67 EWP(t)/ETI IJP(c) JD/WB  
ACC NR: AP6033633 (AN) SOURCE CODE: HU/0014/66/000/010/0449/0451

AUTHOR: Lichtenbergerne, Bajza Edit (Doctor; Candidate of chemical sciences);  
Domony, Andras (Doctor of technical sciences)

ORG: none

TITLE: Differences in the corrosion resistance of various aluminum materials  
in some media of practical importance

SOURCE: Kohaszati lapok, no. 10, 1966, 440-451

TOPIC TAGS: aluminum, corrosion resistant alloy, iron, silicon, high purity  
aluminum, corrosion resistance, aluminum impurity, titanium

ABSTRACT: The classical concept of the corrosion resistance connected with the  
high purity of aluminum was challenged by the results of experiments carried out  
by the Research Institute of the Metal Industry in Budapest. Aluminum with alloy-  
ing materials and contaminants (Fe, Si, Ti) was investigated with water under high  
pressure and at high temperatures, and it was found that the corrosion resistance  
of aluminum increased with the contaminant content. This improved chemical  
resistance was attributed to impurities when the materials were tested in basic

Card 1/2

UDC: 669.715:620.193.001.5

L 08246-67

ACC NR: AP6033633

building materials (concrete, mortar, and gypsum). The unusual corrosion behavior was attributed to the fact that the impurities and alloying elements in aluminum act as cathodes, neutralizing the OH<sup>-</sup> ions. Orig. art. has: 7 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 011/

Card 2/2 *sla*

ACC NR: AP7004048

SOURCE CODE: HU/0014/67/000/001/0045/0048

AUTHOR: Domony, Andras (Doctor of technical sciences); Rott, Nandorne (Doctor)

ORG: none

TITLE: Development, results, and prospects of the Hungarian aluminum end products industry

SOURCE: Kohaszati lapok, no. 1, 1967, 45-48

TOPIC TAGS: aluminum, economic agreement, industrial production, industrial statistic, aluminum end product

ABSTRACT: Foreign and Hungarian data concerning aluminum consumption are evaluated. The economic importance of the Soviet-Hungarian aluminum treaty to the aluminum processing and manufacturing industry is emphasized. The highest consumption of aluminum in Hungary (35.8%) is in the electrical industry. Orig. art. has: 3 figures and 3 tables. [KS]

SUB CODE: 13, 09/SUBM DATE: none/

Card 1/1

UDC: 669.717.002.64:338.4/338.5:338.98

DOMONY, Janosne, gyógytornász

The role of gymnastics and physical therapy in neurology. Orv.  
hetil. 95 no.42:1158-1162 17 Oct 54.

1. A Budapesti Orvostudományi Egyetem Elméleti és Idegkörtani Klinikájának (igazgató: Nyíró Gyula dr. egyet. tanár) közleménye.

(PHYSICAL THERAPY, in various dis.

movement disord. & nerv. system dis.)

(MOVEMENT DISORDERS, ther.

phys. ther.)

(NERVOUS SYSTEM, dis.

phys. ther.)

DOMORADSKIY, I.Y.; IVANOV, V.A.

Some data on the cultivation of plague bacteria on synthetic media.  
Zhur. mikrobiol. epid. i immun 28 no.2:54-59F '57 (MIRA 10:4)

1. Iz Instituta mikrobiologii i epidemiologii Yugo-Vostoka SSSR.  
(*PASTEURILLA PESTIS*, culture  
on synthetic medium)

DOMORADSKIY, V.N., inzh.

Use of graphite washers in the top casting of steel. Stal' 22  
no.4:316 Ap '62. (MIRA 15:5)

1. Ishevskiy metallurgicheskiy zavod.  
(Washers (Mechanical engineering))

DOMORADSKIY, V.N.

Improving the durability of ingot molds. Metallurg 8 no.5:17  
My '63. (MIRA 16:7)

1. Ishevskiy metallurgicheskiy zavod.  
(Ingot molds)

DOMORADZKI, Artur, mgr

Pharmacies in the Kielce District. Farmacja Pol 20  
no. 3/4: 145-146 25 F '64.



DOGORATSKIY, M. I.

Bees -- Diseases

New method of fighting foul broods Pchelovedstve 29, no. 5, May 1952.

9. Monthly List of Russian Accessions, Library of Congress, August <sup>2</sup>1953, Uncl.

DCMORATSKIY, N.A.

Determining the primary nature of metamorphic rocks by  
their content of inert components. Izv. DGI 42:3-19 '64.  
(MIRA 18:11)

DOMORATSKIY, N.A.

Classification and genesis of acid vein rocks in the southern part  
of the Ukrainian crystalline band. Izv. DGI 29:163-178 '57.  
(Dnieper Valley--Petrology) (MIRA 11:5)

AGULOV, Aleksey Pavlovich, kand.geol.-mineral.nauk, nauchnyy sotrudnik;  
ALEKSEYEV, Aleksey Mikhaylovich, dotsent, nauchnyy sotrudnik;  
BAKISH, Mariya Yakovlevna, inzh.-geolog, nauchnyy sotrudnik;  
DOMORATSKIY, Nikolay Aleksandrovich, dotsent, nauchnyy sotrudnik;  
LEVIN, Semen Timofeyevich, dotsent, nauchnyy sotrudnik; NESTERENKO,  
Petr Grigor'yevich, prof., nauchnyy sotrudnik; SHIROKOV, Aleksandr  
Zosimovich, prof., nauchnyy sotrudnik; SHPAKHLER, Abram Grigor'yevich,  
starshiy nauchnyy sotrudnik; OVCHAROVA, Z.G., red.izd-va; ROZENTSVEYG,  
Ye.N., tekhn.red.

[Atlas of Donets Basin coals] Atlas uglei Dneprovskogo basseina.  
Kiev, Izd-vo Akad.nauk USSR, 1960. 44 p.

(MIRA 13:12)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut  
im. Artema (for all, except Ovcharova, Rozentsveyg). 2. Chlen-  
korrespondent AN USSR (for Shirokov).

(Donets Basin--Coal geology)

NESTERENKO, Petr Grigor'yevich, nauchn. sotr.; ALEKSEYEV, Aleksey Mikhaylovich, nauchn. sotr.[deceased]; AGULOV, Aleksey Pavlovich, nauchn. sotr.; BARYSH, Mariya Yakovlevna, nauchn. sotr.; BEL'GARD, Aleksandr Aleksandrovich, nauchn. sotr.; DOMORATSKIY, Nikolay Aleksandrovich, nauchn. sotr.; LESKEVICH, Ivan Yevseyevich, nauchn. sotr.; SHIROKOV, Aleksandr Zosimovich, nauchn. sotr.; YAGOVDIK, Vladimir Vikent'yevich, nauchn. sotr.; KOROLEVA, T.I., red.izd-va; BOLDYREVA, Z.A., tekhn. red.

[Regularities of coal accumulation in the Dnieper lignite basin] Zakonomernosti uglenakopleniya na territorii Dnepropetrovskogo burougol'nogo basseina. Moskva, Gosgortekhnizdat, 1963. 210 p. (MIRA 16:10)

1. Dnepropetrovsk. Dnepropetrovskiy gornyy institut.  
(Dnieper basin--Coal geology)

AUTHOR: Domoratskiy, O. A.

SOV/106-58-12-9/13

TITLE: A New Circuit for Stabilisation of the Speed of Rotation of the Driving Motor of Stop-Start Telegraphic Apparatus (Novaya skhema stabilizatsii skorosti vrashcheniya privodnogo dvigatelya startstopnogo telegrafnogo apparata)

PERIODICAL: Elektrosvyaz', 1958, Nr 12, pp 65-71 (USSR)

ABSTRACT: The author describes, and then analyses, a servo system for automatic control of the speed of the driving motor. The block diagram is given in Fig 1 and the basic circuits in Fig 2. The system consists of: the d.c. separately excited motor; two transducers, producing sinusoidal voltages the frequency of which is proportional to the speed of rotation of the motor; a frequency discriminator; a d.c. amplifier, employing crystal triodes. The field winding of the motor forms the load for the d.c. amplifier. Figs 3a and 3b show, respectively, graphs of the collector currents and of the input current to the final amplifier versus the transducer output frequency. The double circuit

Card 1/3

SOV/106-58-12-9/13

**A New Circuit for Stabilisation of the Speed of Rotation of the Driving Motor of Stop-Start Telegraphic Apparatus**

practically doubles the slope of the discriminator characteristic and acts differentially against temperature variation effects. The speed is stabilised due to the negative feedback between the motor shaft velocity and the motor field winding. Increase in motor speed produces an increase in the field current, leading to reduction in motor speed. The stability and accuracy of the regulation is determined by the feedback loop. The circuit is then analysed, assuring: (1) the field flux is proportional to the field current; (2) the transducer e.m.f.'s are sinusoidal, equal, of constant amplitude and in phase; (3) the slope of the discriminator characteristic is constant; (4) the emitter-collector voltage of the final amplifier and the output current is linear; (5) the frictional losses are constant. It is concluded that the system is free from the deficiencies of the contactor regulator. For good stability and regulation the working regime must be unsaturated, the time constant of the field and armature windings should be as small as

Card 2/3

SOV/106-58-12-9/13

A New Circuit for Stabilisation of the Speed of Rotation of the  
Driving Motor of Stop-Start Telegraphic Apparatus

possible, the electro-mechanical time constant should be as high as possible, and the excitation current should be as small as possible. It was shown experimentally and theoretically that the regulation is not worse than 0.2% for supply voltage variation of  $\pm 20\%$  and shaft load variation of 50%. The effects of temperature variation of the circuit is the topic for a separate study.

There are 7 figures and 3 references, 2 of which are Soviet and 1 translation.

SUBMITTED: January 6, 1958

Card 3/3



GORETSKIY, Leonid Ignat'yevich. dots., kand. tekhn. nauk; BORODACH,  
Arkadiy Ivanovich, inzh.; DUDKIN, P.A., kand. tekhn.nauk  
retsenzent; DOMORATSKIY, S.I., inzh., nauchn. red.

[Design and construction of heliports] Proektirovanie i  
stroitel'stvo vertoletnykh stantsii. Moskva, Stroiizdat,  
1964. 262 p. (MIRA 18:2)

BONDARENKO, S.T.; DOMORATSKIY, V.P.

Some electrophysical properties of petroleum and petroleum products.  
Izv. vys. ucheb. zav.; neft' i gaz 8 no.6:84-88 '65. (MIRA 18:7)

1. Moskovskiy institut neftkhimicheskoy i gazovoy promyshlennosti  
im. akademika I.M.Gubkina.

18

CO

DOMORATSKII, V. P.

PROCESSES AND PROPERTIES OF LIME

Pneumatic method of preparing milk of lime. N. I. Domoratskii. Ognesorosi 3, 306-8(1935).—A device for mixing the charge with the aid of compressed air installed in the slaking bunker eliminates the crushing of lumps of lime and the pollution of the milk by particles of unslaked or dead-burned lime. R. E. Stefanovsky

AND SEE METALLURGICAL LITERATURE CLASSIFICATION

USSR/Engineering - Refractories      Mar 50  
Efficiency, Industrial

"Wet Grinding of Quartzite and Making Dinas Materials  
Out of Dustless Powders and Dross," Ye. I. Domoratskiy, 9 1/2 pp

"Ogneupor" No 3

Suggests two methods for partial modifications in  
process of dinas production to eliminate or minimize  
dust separation. First method provides for use of  
grinding and mixing runners now used in dinas plants.  
Second method is based on more efficient processes

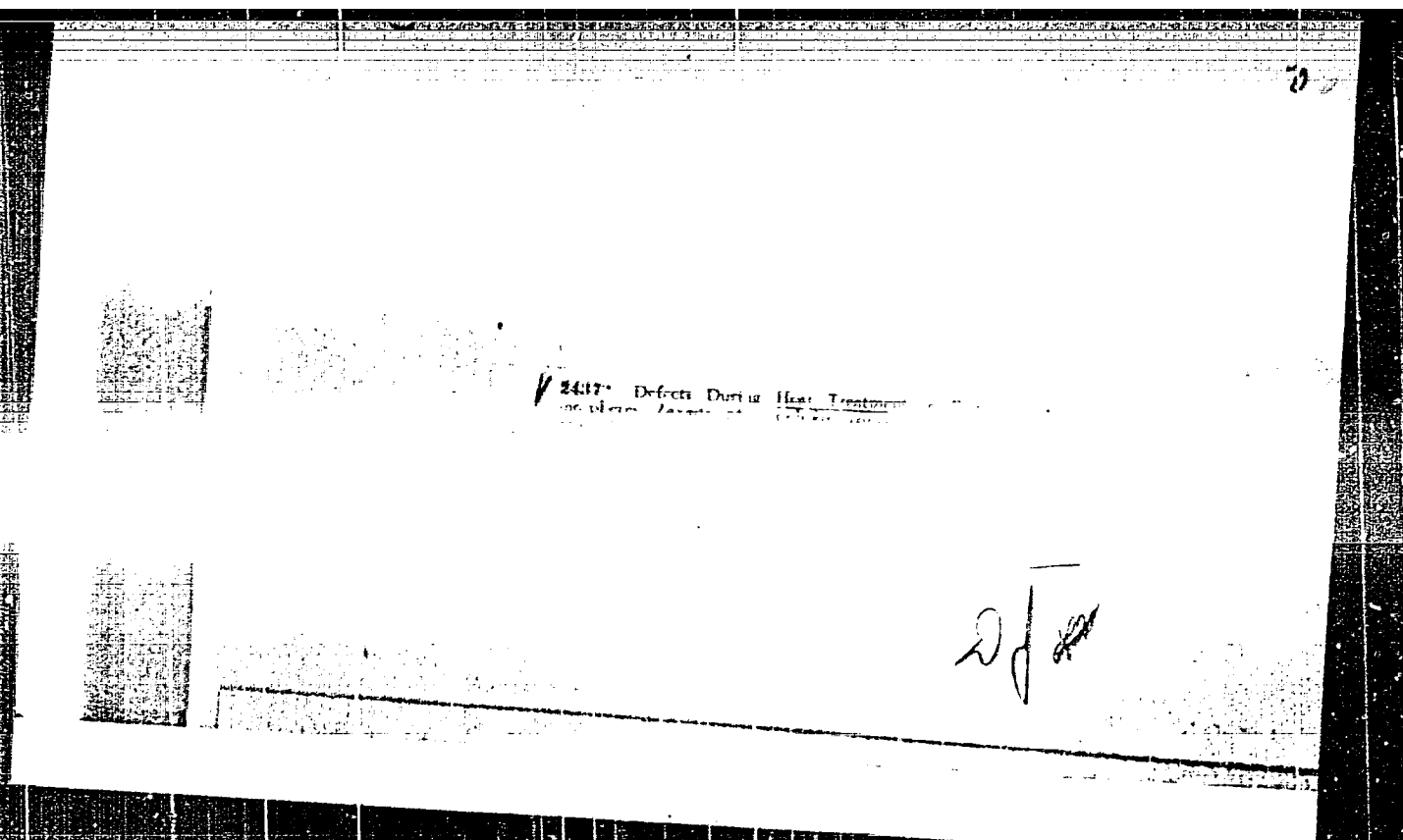
160731

USSR/Engineering - Refractories (Contd)      Mar 50

for mixing wet-ground mass and on quartzite classifica-  
tion, and also on using improved machines for these  
processes.

160731

DOMORATSKIY, Ye. I.



DOMORAZEK, J.

"Protection of small steel articles from corrosion." p. 263.

STROJIRENSTVI. (Ministerstvo tezkého strojírenství, Ministerstvo  
presného strojírenství a Ministerstvo automobilového průmyslu a  
zemědělských strojů). Praha, Czechoslovakia, Vol. 9, No. 4, Apr. 1959.

Monthly list of East European Accessions (HEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

P. DOMRAZEK

"For new agricultural economics." p. 270. (ZA SOCIALISTICKÉ ZEMĚDĚLSTVÍ, Vol. 2, no. 3, Mar. 1952, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

DOMORAZEK, P.

Silos from the point of view of mechanization and economy. n. 374.  
(VESTNIK, Vol. 4, No. 7/3, 1957, Praha, Czechoslovakia)

SD: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.



POLOVINKINA, Yu.Ir.; DOMOROV, V.S., redaktor; SEMENOVA, M.V., redaktor;  
POPOV, N.D., ~~tekhnicheskii~~ redaktor.

Extrusive-sedimentary and magmatic complexes of the Ukrainian  
crystalline shield; tectonic and magmatic analysis. Trudy  
VSEGEI 1:3-92 '54. (MLRA 9:1)

(Ukraine--Rocks) (Ukraine--Geology, Structural)

CHUZH, Ye.I.; DOMOROSLOV, S.P.

Scouring of wool and blended fabrics under tension. Tekst.prom.  
21 no.9:55-56 S '61. (MIRA 14:10)

1. Zaveduyushchiy krasil'no-otdelochnym proizvodstvom Luganskogo  
tonkosukonnogo kombinata (for Chuzh). 2. Starshiy master-tehnolog  
Luganskogo tonkosukonnogo kombinata (for Domoroslov).  
(Woolen and worsted manufacture)

CHUZH, Ye.I.; DOMOROSLOV, S.P.

Application of ultrasonic waves in fabric dyeing. Tekst.prom. 22  
no.2:54 F '62. (MIRA 15:3)

1. Zaveduyushchiy krasil'no-otdelochnym proizvodstvom  
Luganskogo tonkosukonnogo kombinata (for Chuzh). 2. Starshiy  
master Luganskogo tonkosukonnogo kombinata (for Domoroslov).  
(Dyes and dyeing—Wool) (Ultrasonic waves—Industrial  
application)

31191

S/020/60/132/04/19/064  
B014/B007

21.6200

AUTHORS: Starodubtsev, S. V., Academician of the AS Uzbekskaya SSR,  
Khizniichenko, L. P., Domoryad, I. A.

TITLE: The Change of the Constants of Elasticity of Quartz Filaments  
Under the Action of the Gamma Emission of Co<sup>60</sup>

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 4, pp. 803-805

TEXT: The filaments investigated here by means of high-precision methods were produced from molten quartz. Determination of the constants of elasticity was carried out by means of torsional oscillations of the filament sample generated by a magnetic field. Two methods of recording the number of oscillations were tried out. In the case of one of them, the time signals of the Tashkentskaya astronomicheskaya observatoriya (Tashkent Astronomical Observatory) and the zero passages of the light beam reflected by the mirror of the loop oscilloscope were simultaneously recorded on the photographic film of a loop oscilloscope. With the other method, the oscillations per unit time were counted electronically, in

Card 1/3

The Change of the Constants of Elasticity of  
Quartz Filaments Under the Action of the Gamma  
Emission of Co<sup>60</sup>

S/020/60/132/04/19/064  
B014/B007

which case a chronometer was used. The second method was found to be more exact (error of 0.02%), and by means of this method the main results were obtained. Measurements were carried out with six radiation doses within the range of from  $81 \cdot 10^6$  r to  $845 \cdot 10^6$  r. Fig. 1 graphically shows the values of  $\Delta G/G$  calculated from the measurements ( $G$  is the modulus of elasticity in shear) as dependent on the dose. In curve I the linear deformation has not been considered, whereas in curve II it has. Curve III shows the change of  $\Delta l/l$  ( $l$  is the length of the filament). It was found that the modulus of elasticity in shear increases steadily with an increase in the dose; with a further increasing dose this increase becomes less. An increase in the modulus of elasticity by  $0.16 \pm 0.02 \%$  was found with a dose of  $8 \cdot 10^8$  r. The increase in the modulus of elasticity is explained by the occurrence of ordered domains in the structure of the molten quartz. There are 1 figure and 4 references, 2 of which are Soviet.

Card 2/3

1121

The Change of the Constants of Elasticity of  
Quartz Filaments Under the Action of the Gamma  
Emission of  $\text{Co}^{60}$

S/020/60/132/04/19/064  
B014/B007

ASSOCIATION: Institut yadernoy fiziki Akademii nauk UzSSR (Institute of  
Nuclear Physics of the Academy of Sciences, Uzbekskaya SSR)

SUBMITTED: February 23, 1960

4

Card 3/3

S/166/63/000/001/010/010  
B107/B106

AUTHORS: Domoryad, I. A., Khizrichenko, L. P.

TITLE: Method of relative precision measurements for the shear of single crystals

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1963, 79 - 80

TEXT: A method is given for measuring the frequency of shear vibrations on single crystals with high precision. Platelets 35 x 2.5 x 0.1 mm were cut out of silicon and germanium single crystals. These were fastened in an aluminum cartridge and fixed vertically on a microscope stage. The upper narrow side of the platelet was illuminated. The shear vibrations were generated by a small electromagnetic hammer. The light pulses were passed through the microscope via a photomultiplier ФЭУ (FEU) to a loop oscilloscope, type H10 (N10). The time signals with a standard frequency of 1.000 cps were recorded by the oscilloscope at the same time. Five independent measurements of one specimen gave 2476, 2476, 2473, 2476, and 2478 cps. There is 1 figure.

Card 1/2

Method of relative precision ...

S/166/63/000/001/010/010  
B107/B136

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR (Physicotechnical  
Institute AS UzSSR)

SUBMITTED: October 5, 1962

Card 2/2



DOMORYAD, A. P.

Obobshcheniye metoda adams'a-stromera chislennogo integrirovaniya differential'nykh uravneniy vida  $y' = f(X, Y)$ . Otsenki pogreshnosti integrirovaniya. L. Trudy vtorogo vsesoyuzn. Matem. S"ezda, T. 2 (1936), 399-402.

SO: Mathematics in the USSR, 1917-1947  
edited by Kurosh, A. G.,  
Markushevich, A. I.,  
Rashevskiy, P. K.  
Moscow-Leningrad, 1948

DOMORYAD, A.P., dotsent, kandidat fiziko-matematicheskikh nauk.

Greatest in the modulus root of an algebraic equation and its  
extraction. Biul.SAGU no.30:23-33 '48. (MLRA 9:5)  
(Equations)

DOMORYAD, A.P.

Connection between Whittaker's method for solving algebraic  
equations and D. Bernoulli's method. Trudy SAGU 17:37-38 '50.  
(MLRA 9:5)

(Equations)

DOMORYAD, A.P.

Finding primary points of the integral curve for the equation:

$y' = f(x, y)$  . Trudy SAGU 17:43-49 '50. (MLRA 9:5)

(Curves) (Differential equations)

DOMORYAD, A.P.

Connection between the methods of Newton and Whittaker in solving  
algebraic transcendental equations. Trudy SAGU no.36:31-34 '53.  
(MIRA 10:3)

(Equations, Theory of)

DOMORYAD, A.P.

The problem of calculating complex roots of algebraic equations.  
Trudy SAGU no.37:71-74 '54 [i.e. '53] (MLRA 10:3)  
(Equations, Roots of) (Numbers, Complex)

DOMORYAD, A.P.

Numerical sequences of natural logarithms rapidly converging to  
the base. Trudy SAGU no.37:75-77 '54 [i.e. '53] (MLRA 10:3)  
(Logarithms)

DOMORYAD, A.P.

An instrument for solving systems of algebraic equations. Trudy  
SAGU no.54:29-34 '54. (MLRA 10:3)  
(Mathematical instruments) (Equations, Simulatneous)



DOMORYAD, A.P.

Instrument for the determination of Fourier's coefficients. Truly  
SAGU no.66:29-32 '56. (MIRA 10:1)  
(Mathematical instruments) (Fourier's series)

~~DOMORAD~~, Aleksandr Petrovich; KOPYLOVA, A.N., red.; MURASHOVA, N.Ya.,  
tekhn.red.

[Mathematical games and recreations] Matematicheskie igry i  
razvlechenia. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1961.  
266 p. (MIRA 14:4)  
(Mathematical recreations)

L 19428-63 EWT(d)/FCC(w)/HDS AFFTC/IJP(C)  
ACCESSION NR: AR3005387

S/0044/63/000/006/V011/V012

SOURCE: RZh. Matematika, Abs. 6V38

AUTHOR: Domoryad, A. P.

TITLE: Generalization of Newton's method for the solution of a system of algebraic and transcendental equations

CITED SOURCE: Nauchn. tr. Tashkentsk. un-t, vyp. 208, 1962, 61-64

TOPIC TAGS: Newton method, linear algebra, transcendental equation, algebraic equation

TRANSLATION: The author generalizes the well-known Newton method for the solution of a system of algebraic and transcendental equations

$$\left. \begin{aligned} f_1(x_1, x_2, \dots, x_n) &= 0 \\ f_2(x_1, x_2, \dots, x_n) &= 0 \\ &\vdots \\ f_n(x_1, x_2, \dots, x_n) &= 0 \end{aligned} \right\} \quad (1)$$

It is suggested that system (1) be replaced by the system

Card 1/3

L 19428-63

ACCESSION NR: AR3005387

$$\begin{aligned} & f_s + \frac{\partial f_s}{\partial x_1} x_1 + \dots + \frac{\partial f_s}{\partial x_n} x_n + \frac{1}{2} \left( x_1 \frac{\partial}{\partial x_1} + \dots + x_n \frac{\partial}{\partial x_n} \right)^2 f_s + \dots \\ & \dots + \frac{1}{m!} \left( x_1 \frac{\partial}{\partial x_1} + \dots + x_n \frac{\partial}{\partial x_n} \right)^m f_s = 0 \quad (s=1, \dots, n). \quad (2) \end{aligned}$$

where  $f_s, \frac{\partial f_s}{\partial x_1}, \frac{\partial^2 f_s}{\partial x_1 \partial x_k}$  etc., are the values of the corresponding functions at

the point  $(x_1^{(0)}, x_2^{(0)}, \dots, x_n^{(0)})$  which is the initial approximation to the solution,  $z_s = x_s - x_s^{(0)}$ . The solution  $(c_1, c_2, \dots, c_n)$  of system (2) is found by iteration according to the formulas:

$$\begin{aligned} c_s^{(p)} &= \frac{\Delta_s^{(p)}}{\Delta^{(0)}} - \frac{1}{\Delta^{(0)}} \times \\ & \times \begin{vmatrix} \frac{\partial f_1}{\partial x_1} \dots \frac{\partial f_1}{\partial x_n} (c_1^{(p-1)}, \dots, c_n^{(p-1)}) & \dots & \frac{\partial f_1}{\partial x_n} \\ \vdots & \ddots & \vdots \\ \frac{\partial f_n}{\partial x_1} \dots \frac{\partial f_n}{\partial x_n} (c_1^{(p-1)}, \dots, c_n^{(p-1)}) & \dots & \frac{\partial f_n}{\partial x_n} \end{vmatrix} \quad (3) \end{aligned}$$

Card 2/3

L 19428-63

ACCESSION NR: AR3005387

where  $c_s^{(0)} = - \frac{\Delta_s^{(0)}}{\Delta^{(0)}}$  is the initial approximation

$$\Delta^{(0)} = \begin{vmatrix} \frac{\partial f_1}{\partial x_1} & \dots & \frac{\partial f_1}{\partial x_n} \\ \vdots & \ddots & \vdots \\ \frac{\partial f_n}{\partial x_1} & \dots & \frac{\partial f_n}{\partial x_n} \end{vmatrix} \neq 0.$$

$\Delta_s^{(0)}$  is obtained from  $\Delta^{(0)}$  by replacing the s-th column by the numbers  $f_1, f_2,$

$\dots, f_n,$

$$\Phi_s(z_1, \dots, z_n) = \frac{1}{2} \left( z_1 \frac{\partial}{\partial x_1} + \dots + z_n \frac{\partial}{\partial x_n} \right)^2 / s + \dots$$

$$\dots + \frac{1}{m!} \left( z_1 \frac{\partial}{\partial x_1} + \dots + z_n \frac{\partial}{\partial x_n} \right)^m / s.$$

The convergence of the iterations is assured if the numbers  $c_1, c_2, \dots, c_n$  are small in absolute value. The convenience of formulas (3) for computations on computers is noted. Yu. Baraboshkin.

DATE ACQ: 24Jul63

SUB CODE: MM

ENCL: 00

Card 3/3

DOMORYAD, A.P.; KOSYUK, S.D.

M.L. Frank's formulae for approximate calculation of double  
integrals. Nauch. trudy TashGU no.208. Mat. nauki. no.23:  
71-75 '62. (MIRA 16:8)

(Integrals, Multiple)

DOMORYAD, A.P.

Graphic calculation of n-order determinants. Nauch. trudy TashGU  
no.208. Mat. nauki no.23:65-70 '62. (MIRA 16:8)

(Determinants--Graphic methods)

STARODUBTSEV, S.V., akademik; KHIZNICHENKO, L.P.; DOMORYAD, I.A.

Variation of the elasticity constants of quartz filaments in  
response to gamma radiation from  $\text{Co}^{60}$ . Dokl. AN SSSR 132  
no. 4: 803-805 Je '60. (MIRA 13:5)

1. Institut yadernoy fiziki Akademii nauk UzSSR. 2. AN UzSSR  
(for Starodubtsev).  
(Quartz) (Gamma Rays)



S/638/61/001/000/049/056  
B116/B138

AUTHORS: Domoryad, I. A., Khiznichenko, L. P.  
TITLE: Method of measuring elastic properties of irradiated substances  
SOURCE: Tashkentskaya konferentsiya po mirnomy ispol'zovaniyu atomnoy energii. Tashkent, 1959. Trudy. v. 1. Tashkent, 1961, 284 - 285

TEXT: The authors studied the change of mechanical properties of substances exposed to penetrating radiation by the torsional vibration method. Results are given. The method has the following advantages: (1) the elasticity constants of samples are determined unambiguously (by measuring the frequency or cycle of torsional vibrations); (2) variations in the relaxation of samples due to radiation can be investigated at the same time over a wide temperature range; (3) higher accuracy than with the sonic resonance (Ref. 1, see below) or Bergmann-Schäfer methods (Zhdanov, G. S., Zubov, V. G., Ivanov, A. T., Firsova, M. M. V kn. "Kristallografiya" (in the book "Crystallography"), t. 3. vyp. 6, 1958). The experimental setup

Card 1/3

Method of measuring elastic...

S/638/61/001/000/049/056  
B116/B138

consisted of a tube, an optical system, and a recording circuit. Molten quartz was investigated. Quartz threads were fitted in the tube which was attached to a flange in the vacuum apparatus. The reflection mirror was made by Breshir's method. The vibrations were recorded on a photo-multiplier, from which the pulse was passed by a special circuit, which steepened the pulse front to the recording device, which determined the vibrational frequency. Only amplitudes of more than 100 mm affected the vibration cycle, which remained constant from  $p = 1 \cdot 10^{-1}$  mm Hg, while an ambient temperature of 10 - 30°C had no effect. With this method variations could be detected due to radiation during a vibration cycle of  $5 \cdot 10^{-2}$  (with a relative accuracy of 0.01%). All measurements were made at room temperature. Summary: (1) Under the action of 1.25-Mev gamma radiation with a dose of  $8 \cdot 10^8$  r, the elasticity of molten quartz increases by 0.16%. This may be due to crystallization of the molten quartz during irradiation, since the normal modulus of elasticity ( $7 \cdot 10^{11}$  dynes/cm<sup>2</sup>) of crystalline is higher than that of molten quartz ( $5 \cdot 10^{11}$  dynes/cm<sup>2</sup>). (2) The maximum contribution of the linear dimensions to the change in the

Card 2/3

Method of measuring elastic...

S/638/61/001/000/049/056  
B116/B138

shear modulus of molten quartz is only 0.02% at a dose of  $8 \cdot 10^8$  r. (3)  
The information given in the work by G. Mayer and J. Gigon (Journ. Phys. Rad., 18, 109, 1957), who stated that gamma radiation does not affect the elasticity constants of molten quartz does not contradict our results, because the accuracy of their experiments was very low (0.1%). There are 2 figures and 2 references: 1 Soviet and 1 non-Soviet.

ASSOCIATION: Fiziko-tekhnicheskii institut AN UzSSR (Physicotechnical Institute AS Uzbekskaya SSR)

Card 3/3

341.51

S/196/62/000/010/009/035  
E073/E155

5.4600

AUTHORS: Domoryad, I.A., and Khiznichenko, L.P.

TITLE: Method of measuring the elastic properties of irradiated materials

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.10, 1962, 12, abstract 10 B71. (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniyu atomn. energii, v.1, 1959, Tashkent, AN UzSSR, 1961, 284-285)

TEXT: Equipment is described for measuring the resonant frequency of the torsional vibrations of thin fibres of fused quartz exposed to penetrating radiation. The fluctuations were recorded by an optical system and photomultiplier. The influence of the oscillation amplitudes, the external pressure and the temperature on the resonant frequency was investigated. The equipment permits measuring the shear modulus of the material with an accuracy of 0.02%. It was found that exposure to  $\gamma$ -radiation with energies of 1.25 MeV and those of  $8 \cdot 10^8$  roentgen increases the shear modulus of the fused quartz by 0.16%, which

Card 1/2

Method of measuring the elastic ... S/196/62/000/010/009/035  
E073/E155

is attributed to partial crystallization of the fused quartz.

[Abstractor's note: Complete translation.]

Card 2/2

15.2610

27146  
S/166/61/000/004/005/007  
B112/B102

AUTHORS: Domoryad, I. A., Starodubtsev, S. V., Member of the AS  
Uzbekskaya SSR, Khiznichenko, L. P.

TITLE: Precise method of measuring the changes of the elasticity  
characteristics of glass-like substances

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko -  
matematicheskikh nauk, no. 4, 1961, 57 - 62

TEXT: The authors describe a method of determining the relative change  
 $\Delta G/G$  of the shearing modulus  $G$  of glass-like substances as depending on  
the relative change  $\Delta \nu/\nu$  of the frequency  $\nu$  of torsional oscillations.  
This dependence is given by (2):

$$\Delta G/G = -3\Delta L/L + 2\Delta \nu/\nu ; \quad (2)$$

$L$  is the length of the thread-like specimen. The method described here  
is highly accurate for several reasons: on the one hand the authors use  
an experimental arrangement which permits a precise (automatic) measure-  
ment of the frequency  $\nu$  (frictionless suspension of the thread, excitation  
of the torsional oscillations by a magnetic field), on the other, the

Card 1/2

Precise method of measuring the ...

27146  
S/166/61/000/004/005/007  
B112/B102

authors demonstrate that the unavoidable deviation of the thread shape from the cylindrical shape does not change relation (2). Proof: if the radius  $R$  of the thread is approximately expressed by a relation

$R = R_0 e^{\alpha y}$ , the following relations hold:

$$\Delta G/G = \Delta L/L + \Delta S/S + 2\Delta v/v - \Delta R/R_0, \quad (13)$$

$$\Delta S/S = (1/\ln R/R_0 - 4R_0^4/(R^4 - R_0^4))(\Delta R_0/R_0 - \Delta R/R). \quad (16)$$

For  $\Delta R_0/R_0 = \Delta R/R = \Delta L/L$ ,  $\Delta S/S = 0$  and formula (13) goes over into formula (2) for a molten quartz thread in the experimental arrangement described here. The authors mention G. I. Kazakov. There are 6 figures.

ASSOCIATION: Akademiya nauk UzSSR (Academy of Sciences Uzbekskaya SSR)

SUBMITTED: April 25, 1961

Card 2/2

L 2440-66 EWP(s)/EPA(s)-2/EWT(m)/EPF(c)/EWP(1)/EPF(n)-2/EPA(w)-2/EWP(t)/  
EWP(b)/EWA(h)/EWA(1) IJP(c) JD/GG/GS/WH 5/50

ACCESSION NR: AT5023817

UR/0000/62/000/000/0347/0354

AUTHOR: Starodubtsev, S. V.<sup>44</sup>; Azizov, S. A.<sup>44</sup>; Domoryad, I. A.<sup>44</sup>; Peshikov, Ya. V.<sup>44</sup>  
Khiznichenko, L. P.<sup>44</sup>

TITLE: Change in the mechanical characteristics of certain solids exposed to  
gamma radiation 19

SOURCE: Soveshchaniye po probleme Deystviye yadernykh izlucheni na materialy.  
Moscow, 1960, Deystviye yadernykh izlucheni na materialy (The effect of nuclear  
radiation on materials); doklady soveshchaniya. Moscow, Izd-vo AN SSSR, 1962,  
347-354 15

TOPIC TAGS: gamma irradiation, quartz, shear modulus, irradiation effect,  
dielectric property, solid mechanical property

ABSTRACT: The effect of  $\gamma$  radiation on certain mechanical and dielectric pro-  
perties of fused quartz fibers, Rochelle salt crystals, and ceramic barium  
titanate is studied. A 1.25 MEV  $\text{Co}^{60}$  source was employed at a dose rate of  
 $10^6$  r/hr. The shear modulus of fused quartz increases with the dose, and at  
 $1.5 \times 10^9$  r, the change  $\Delta G/G$  is 0.22% ( $\pm 0.02\%$ ). Gamma irradiation also  
changes the linear dimensions of fused quartz. These changes in elasticity

Card 1/2



L 2440-66

ACCESSION NR: AT5023817

and size may be satisfactorily explained by assuming a partial ordering (crystallization) of the lattice under the influence of  $\gamma$  rays. The observed effects of intense  $\gamma$  irradiation on the linear dimensions and "melting" point of Rochelle salt appear to be due to the destruction of the sample. The considerable effect of  $\gamma$  irradiation on the dielectric and elastic properties of BaTiO<sub>3</sub> ceramics are qualitatively similar to the aging process. The presence of healing at room temperature indicates that at least some of the defect centers (or new states of the domain walls) are unstable. Orig. art. has: 8 figures.

ASSOCIATION: none

SUBMITTED: 18Aug62

ENCL: 00

SUB CODE: NP, SS

NO REF SOV: 004

OTHER: 008

Silicon 27

Card

2/2 *md*

5.2400  
5.4600

15716

S/020/61/139/003/015/025  
B103/B226

AUTHORS: Starodubtsev, S. V., Academician AS Uzbekskaya SSR,  
Domoryad, I. A., and Khiznichenko, L. P.

TITLE: Change of the mechanical characteristics of amorphous  
selenium under the action of gamma rays

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 3, 1961, 594-595

TEXT: The present paper gives the results of a study of the effect of gamma rays upon the internal friction  $Q^{-1}$  and the shear modulus  $G$  of amorphous selenium, obtained from the logarithmic decrement and the frequency of torsional vibrations, respectively (see the authors' paper Ref. 1: Izv. AN UzSSR, ser. fiz. No. 4 (1961)). The data on the mechanical properties of selenium, especially the elastic properties of irradiated selenium, are not contained in the literature. Measurements were conducted with selenium threads drawn out of the melt. The fused-off ends of the specimens had a characteristic shape and served for holding the specimen. Thus, the point where the clamps were attached was prevented from friction. The length of the thread was 30 mm, its diameter

Card 1/4

25716

S/020/61/139/003/015/025  
B103/B226

Change of the mechanical characteristics...

20 - 100  $\mu$ . The longitudinal stress acting on specimens having different diameters was between 300 and 1500 g/mm<sup>2</sup>. This is much less than the tensile strength of selenium threads ( $11 \pm 1.5$  kg/mm<sup>2</sup>) found by the authors in a special test. The deformation of the specimens investigated did not exceed  $10^{-5}$ . The specimens were irradiated in a Co<sup>60</sup> apparatus with a dose of  $700 \cdot 10^3$  r/hr. Fig. 1 shows the dependence of the relative change of the shear modulus G and of the internal friction Q<sup>-1</sup> on the duration of irradiation. Therefrom, it can be seen that G of glass-like selenium increases monotonically with the dose up to saturation. In this case, the maximum change of the relative value  $\Delta G/G$  amounts to 10 % at a dose of about  $20 \cdot 10^6$  r, whereas Q<sup>-1</sup> is changed more strongly, i.e., it decreases by 40 %. In order to clarify the radiative disturbances in selenium, the irradiated specimens were heated and kept at the given temperature for a certain time interval. Measurements were conducted at 17°C. The authors established that in the course of 10 days no notable annealing occurred. The properties of selenium are partially restored by subjecting the specimen to a temperature of 25°C for 15 min (Fig. 2); later on, however, the crystallization process probably goes on increasing. A further heating leads to a further increase of G [Abstracter's note: Text at the end of

Card 2/4

25716

S/020/61/139/003/015/025

Change of the mechanical characteristics... : B103/B226

p. 594 interrupted.] The radiative changes of  $G$  and  $Q^{-1}$  observed in amorphous selenium are apparently due to the peculiarities of its structure. At present, glass-like selenium is assumed to have a ring structure  $Se_8$ . While drawing threads the authors, however, established advantageous conditions for a predominating orientation of  $-Se-Se$  chains. Due to the varying speed of drawing and irregular cooling of the specimens at individual spots, a rupture of the chains, deformation of the rings, and different kinds of uncontrollable distortions occurred, whereby a non-equilibrium state in the structure of the thread was caused. As is shown by the experimental results,  $G$  is increased by gamma irradiation, while  $Q^{-1}$  is decreased. This corresponds, as it were, to the transition to a more equilibrated, crystalline state of the substance. Accordingly, the authors assume that the penetrating radiation compensates all possible distortions in glass-like selenium and, thus, arranges its structure. There are 2 figures and 2 Soviet-bloc references.

SUBMITTED: April 21, 1961

Card 3/4

DOMORYAD, I. A.; KHIZNICHENKO, L. P.

Methodology of precision relative measurements of shearing vibrations in single crystals. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 7 no.1:79-80 '63. (MIRA 16:4)

1. Fiziko-tekhnicheskii institut AN UzSSR.

(Crystals—Vibration)

DOMORYAD, I.A.; KROMER, P.F.; UTENIYAZOV, Ye.; KHIZNICHENKO, I.F.

Inelastic phenomena in amorphous selenium. Izv. AN Uz. SSR  
Ser. fiz.-mat. nauk 8 no.3:61-66 '64.

(MIRA 17:10)

1. Institut yadernoy fiziki AN UzSSR.

DOMORYAD, I.A.; KAYPNAZAROV, D.

Effect of gamma radiation on the electric properties of chalcogenide glasses of the system  $\text{As}_2\text{Se}_2 - \text{As}_2\text{Te}_2$ . Izv. Akad. Nauk. SSR fiz.-mat. nauk 8 no.3:67-70 '64.

(MIRA 17:10)

1. Institut yadernoy fiziki AN U.SSR.

ACCESSION NR: AP404793

S/0166/64/000/003/0061/0066

AUTHOR: Domoryad, I. A.; Kromer, P. F.; Uteniyazov, Ye.; Khiznichenko, L. P.

TITLE: Inelastic phenomena in amorphous selenium

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 3, 1964, 61-66

TOPIC TAGS: selenium, amorphous selenium, polymer structure, creep, internal friction, selenium crystallization, selenium elasticity, activation energy

ABSTRACT: Like polymers, amorphous selenium consists of long molecules with interaction both between the chains and within each chain. If tension is applied to Se in the presence of heat, the molecules will orient themselves in the direction of the tension, resulting in elastic or inelastic displacements. The boundaries between the partially oriented chains of amorphous Se should behave like a viscous substance whose coefficient of viscosity decreases with increasing temperature. Under the appropriate conditions, it should therefore be possible to observe inelastic phenomena such as restorative creep under constant stress, relaxation of stress under constant strain, an elastic aftereffect following removal of the load, and internal friction, i.e. phenomena in which the strain and stress are not single-valued functions of one another in the pre-elastic region. In the present

Card 1/4



ACCESSION NR: AP4044793

paper, creep and stress relaxation were investigated by the method of torsional vibrations in fibers (30-60  $\mu$  x 30 mm) of amorphous Se. A straight-line relationship was obtained between the stress (as measured by the current flowing through a galvanometer) and the strain (as measured by the deflection of a mirror) at temperatures from -20 to +30C, indicating that the experiments were carried out in the range of elastic deformations. The creep curves shown in Fig. 1 of the Enclosure indicate that creep decreases with decreasing temperature. Mathematical expressions are developed for the relationship between creep and both temperature and time, and it is demonstrated that the ratio between the moduli of relaxation and elasticity is less than 1.0. Fig. 2 of the Enclosure shows the relaxation of stress under constant strain. Calculations revealed that the energy of activation for amorphous Se is on the order of 6200 cal./mol.; after incubation for 6-8 hrs. at 33C, however, the energy of activation increases to approximately 12000 cal./mol., due apparently to a partial transition from the amorphous to the crystalline state. Even this figure is low compared to the activation energy for metals, due to the linear polymeric structure of selenium. Orig. art. has: 6 figures and 5 formulas.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics, AN UzSSR)

SUB CODE: MM, 88

SUBMITTED: 09Mar64  
Card 2/4

NO REF SOV: 004

ENCL: 02  
OTHER: 001

ACCESSION NR: AP4044793

ENCLOSURE: 01

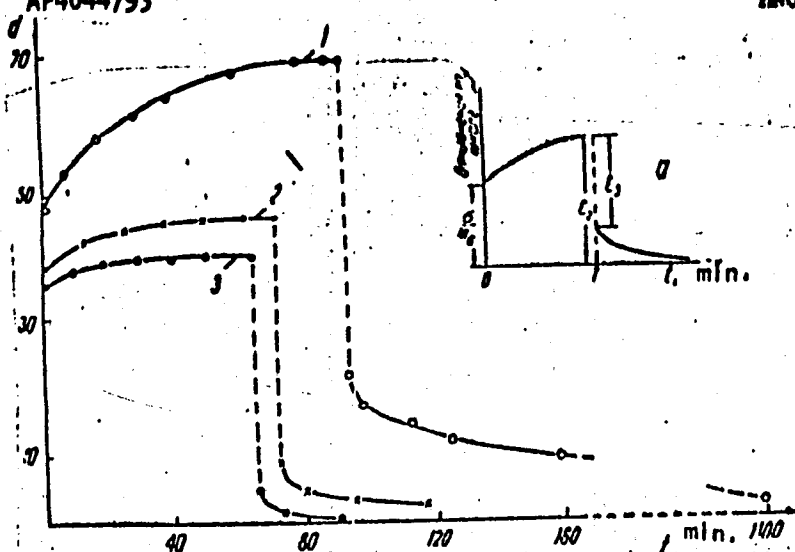


Fig. 1. Creep and creep recovery in amorphous selenium at: 1 -  $-20^{\circ}\text{C}$ ; 2 -  $0^{\circ}\text{C}$ ; 3 -  $+20^{\circ}\text{C}$ . In both graphs, ordinate = scale deflection in mm, abscissa = time in minutes.  
Card 3/4

ACCESSION NR: AP4044793

ENCLOSURE: 02

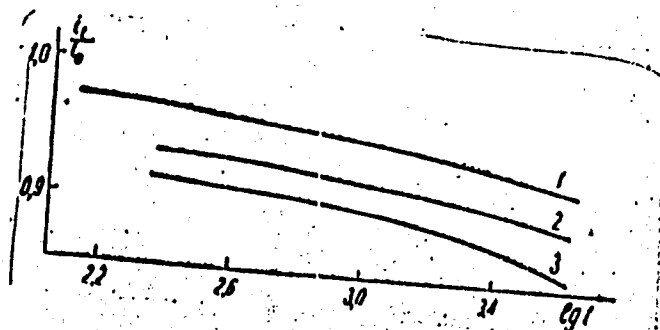


Fig. 2. Stress relaxation at constant strain: 1 - -24C; 2 - -5C; 3 - +5C.

Card 4/4

L B655-65 HWP(s)/EWT(m)/EPT(s)/EPP(n) 2/EWP(b) Pq-4/Pr-4/Pu-4 AFMJC/ASD(F)-2/  
AS(mp)-2/ESD(gs)/ASD(a)-5/ESD(t)/RAEM(t) GG/WH

ACCESSION NR: AP4044794

S/0166/64/000/003/0067/0070

AUTHOR: Domeryad, I. A.; D. Karpov

TITLE: Effect of gamma radiation on the elastic properties of chalcogenous glasses of the system  $As_2Se_3 - As_2Te_3$

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 3, 1964, 67-70.

TOPIC TAGS: radiation, gamma radiation, elasticity, glass, selenium, tellurium, arsenic, chalcogenous glass

ABSTRACT: In order to help clarify the structure of inorganic polymers, the authors studied the effect of gamma radiation from  $Co^{60}$  on the elastic properties (internal friction, dimensions and modulus of displacement) of glasses of the system  $As_2Se_3 - As_2Te_3$ , using the method of torsional vibrations. Samples were irradiated at approximately 35 C with a total dose of  $5 \times 10^9$  r at a rate of 100-500 r/sec. The parameter used to evaluate the radiation-induced changes in elasticity was the square of the frequency of free vibrations, from which the change in the modulus of displacement was calculated by applying the formula

Card 1/6

L 8655.65

ACCESSION NR: AP4044784

2.

$$\frac{\omega}{\sigma} = 2 \frac{v}{L} - 3 \frac{u}{L}$$

(1)

where L is the length of the sample. Internal friction was evaluated on the basis of the logarithmic attenuation, i.e. the period of the torsional vibrations and the number of vibrations required to reduce the amplitude 50%. The results are shown in Figures 1-4 of the Enclosure. On comparison of the data found with analogous results for amorphous quartz and selenium, it is found that the elastic properties change uniformly with radiation, and that the modulus of displacement of these substances increases with the radiation dosage, although the changes in quartz are very small. The authors point out that the changes in linear dimensions are the same for molten SiO<sub>2</sub> as for chalcogenous glasses (see Fig. 4), due presumably to structural similarities. "The authors express their gratitude to Prof. B. T. Kolomiya for the samples of chalcogenous glass." Orig. art. has: 1 formula and 4 figures.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics, AN UzSSR)

SUBMITTED: 12Mar64

ENCL: 04

SUB CODE: ES, MT

NO REF SOV: 015

OTHER: 000

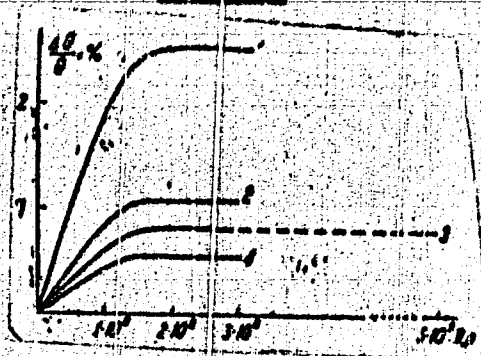
Card

2/6

1. 8655-65  
ACCESSION NR AP4044704

Figure 1

ENCLOSURE: 01



The influence of  $\gamma$ -radiation on the modulus of displacement of chalcogenous glass of the system  $\text{As}_2\text{Se}_3$ ,  $\text{As}_2\text{Te}_3$ :

- 1 -  $\text{As}_2\text{Se}_3$ ; 2 -  $2\text{As}_2\text{Te}_3$ ; 3 -  $\text{As}_2\text{Se}_3 \cdot \text{As}_2\text{Te}_3$ ;  
4 -  $\text{As}_2\text{Se}_3 \cdot 2\text{As}_2\text{Te}_3$ .

Card

1/6

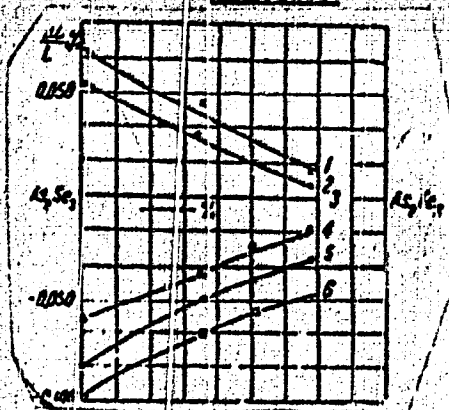
ACCESSION NR: AP4044794

L 8655-65

Figure 2

ENCLOSURE: 02

0



Changes in the linear dimensions of chalcogenous glasses of the system  $As_2Se_3 - As_2Te_3$  in relation to dosage of radiation and composition:

- 1 -  $75 \cdot 10^6$  p; 2 -  $D = 115 \cdot 10^6$ ;  $75 \cdot 10^6$  p;
- 3 -  $100 \cdot 10^6$  p; 4 -  $125 \cdot 10^6$  p; 5 -  $150 \cdot 10^6$  p;
- 6 -  $250 \cdot 10^6$  p and higher

Card

4/6

L 8651-65

ACCESSION NR: AP4044794

Figure 3

ENCLOSURE: 03



Effect of  $\gamma$ -radiation on the internal friction of glass of the system  $\text{As}_2/\text{As}_2\text{Te}_2$ .

Card

5/6

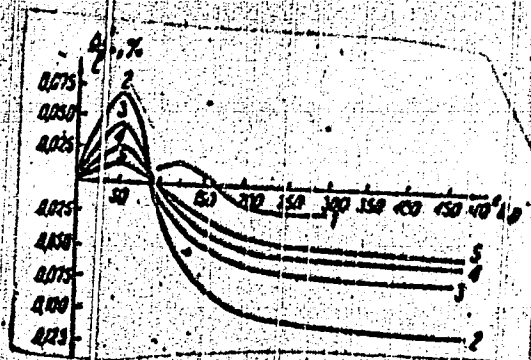


ACCESSION NR: AP4044784

L 3655-65

Figure 4

ENCLOSURE: 04



Relative changes in the linear dimensions of various glasses as a function of the dose of radiation: 1 - molten quartz; 2 -  $\text{As}_2\text{O}_3$ ; 3 -  $2\text{As}_2\text{Se}_3 \cdot \text{As}_2\text{Te}_3$ ; 4 -  $\text{As}_2\text{Se}_3 \cdot \text{As}_2\text{Te}_3$ ; 5 -  $\text{As}_2\text{Se}_3 \cdot 2\text{As}_2\text{Te}_3$ .

Card

6/8

DOMOPYAD, I.A.; KAYPNAZAROV, D.; KHIZNICHENKO, L.P.

Effect of gamma rays on the elastic properties of vitreous  
arsenic trisulfide. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 7 no.5:  
87-89 '63. (MIRA 17:8)

1. Institut yadernoy fiziki AN UzSSR.

1. TURBIN, N. V. and DOMORYAD, N. P.
2. USSR (600)
4. Radishes
7. Strengthening the stability of inherited qualities in plants by selection under conditions of free cross-pollination. Vest.Len.un. 7 no. 1, 1952.
9. Monthly List of Russian Accessions. Library of Congress, February 1953, Unclassified.

DOMOGHITSKAYA, N. Ye.

Axiomatic character of almost monotone ordered semigroups. Sib.  
mat. zhur. 5 no. 4 1980-81. 31-43. (MIRA 17:8)

DOMOSLAWSKA-BARANIECKA, Maria Danuta

Fluvial deposits of the Rgilewka valley. Kwartalnik geol 5 no.2:  
469-477 '61.

1. Zaklad Zdjec Geologicznych Instytutu Geologicznego.

DOMOSLAWSKA, M.

"Tasks of urban physiogeography. p. 84." (PRZEGLAD GEOGRAFICZNY. POLISH  
GEOGRAPHICAL REVIEW, Vol. 24, no. 1/2, 1952, Warszawa, Poland.)

SO: East European L. C. Vol. 2, No. 12, Dec. 1953

DOMOSLANSKA, H.

Nowak, J. Activities concerning the detailed mapping of the Polish Lowland.

p. 378.

PRZEGLAD GEOLOGICZNY, Warszawa, No. 3, Aug. 1955.

SO: Monthly List of East European Accessions, (MEAL), LP, Vol. 4, no. 10, Oct. 1955,  
Uncl.

ROBLEWSKI, W.; GIETNER, M.; DOMOSLAWSKA, Z.; JAKUBOWSKI, A.; BLASZCZYSZYN, M.  
Reticuloses X with observations on 3 cases. *Pediat. pol.* 36 no.7:  
743-750 '61.

1. Z Oddziału Dziecięcego Centr. Szpit. Klin. MSW w Warszawie  
Ordynator: prof. dr med. T.Chrapowicki i z Zakładu Radiologii Centr.  
Szpit. Klin. MSW w Warszawie Kierownik: doc. dr med. W.Trzetrzewinski.  
(RETICULOENDOTHELIOSIS in inf & child)



MAJEWSKA, Jadwiga; DOMOSLAWSKA, Zdzisława; KAMINSKA, Maria

3 Cases of congenital obstruction of the digestive system. Pediat.  
pol. 37 no.4:433-436 Ap '62.

1. Z Oddziału Noworodków Centralnego Szpitala Klinicznego MSW w Warszawie  
Ordynator: dr med. J. Majewska.

(GASTROINTESTINAL SYSTEM abnorm)

MAJEWSKA, Jadwiga; DOMOSLAWSKA, %dzislawa

Pathological neonatal jaundice and its treatment. Pediat. pol. 37  
no.12:1303-1309 D '62.

1. Z Oddzialu Noworodkow Centralnego Szpitala Klinicznego MSW w  
Warszawie Ordynator: dr med. J. Majewska.  
(JAUNDICE NEONATAL)

DOMOSLAWSKI, S.

General trends in developing electric measuring instruments for laboratory use. Pt. 1. (To be contd.) p.19.

POMIARY, AUTOMATYKA, KONTROLA. (Naczelna Organizacja Techniczna)  
Warszawa, Poland. Vol. 5, no.1, January 1959

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

DOMOSLAWSKI, S.; SZCZEPANIAK, C.

Diagrams for the selection of the most favorable resistance in the Swinburne arrangement for temperature error compensation in movable coil millivoltmeters. p. 45.

POMIARY, AUTOMATYKA, KONTROLA. (Naczelna Organizacja Techniczna)  
Warszawa, Poland. Vol. 5, no. 2, 1959.

Monthly list of East European Accessions (EEAI) LC, vol. 8, no. 8, Aug. 1959.

Uncl.

DEMOSLAWSKI, S.

Trends in the development of electric measuring instruments for laboratory use. p. 54.

POMIARY, AUTOMATYKA, KONTROLA. (Naczelna Organizacja Techniczna Warszawa, Poland. Vol. 5, no. 2, 1959.

Monthly list of East European Accessions (EEAI) LC, vol 8, no. 8, Aug. 1959.

Uncl.

BELEK, Jan, mgr inz.; DOMOSLAWSKI, Stanislaw, mgr inz.; WRZOSEK, Mateusz,  
mgr inz.; De MEZER, Jerzy, mgr inz.; TURKIEWICZ, mgr inz.  
BOROWICZ, Lech, mgr inz.

Survey of foreign measuring and controlling instruments  
at the 32nd International Poznan Fair. Pomisary 9 no.12:  
607-61 D '63.

DOMOSŁAWSKI, Zbigniew

~~Prof. dr E Szczekliki~~  
Acute strumitis. Przegl.lek, Krakow 11 no.5:138-141 '55.

1. Z III Kliniki Chorob Wewn. AM we Wroclawiu Kierownik:  
Prof. dr E Szczekliki  
(THYROIDITIS  
acute, clin. aspects)

DOMOSLAWSKI, ZBIGNIEW

BOGDANIKOWA, Beata, DOMOSLAWSKI, Zbigniew

Flocculation reaction with Lugol's solution. Przegl.lek.,  
Krakow 11 no.7:210-213 '55.

1. Z III Kliniki Chorob Wewn.A.M. we Wroclawiu. Kierownik:  
prof. dr B. Szczekliki.-

(LIVER FUNCTION TEST

flocculation reaction with Lugol's solution)



DOMOSLAWSKI, Zbigniew (Wroclaw, ul. Benedyktynska 22 m 5.)

Effect of increased histamine dosage on gastric secretion in  
so-called histamine-resistant anacidity. Polski tygod. lek. 14  
no.18:804-807 4 May 59.

1. (Z III Kliniki Chorob Wewnętrznych A. M. we Wrocławiu; kierownik:  
prof. dr E. Szczeklik, Oddział B, kierownik: prof. dr Zdz. Wiktor).

(HISTAMINE, eff.

increased histamine dos. on gastric secretion in so-  
called histamine resist. achlorhydria (Pol))

(GASTRIC JUICE

secretion, eff. of increased histamine dos. in so-  
called histamine-resist. achlorhydria (Pol))

EXCERPTA MEDICA Sec 6 Vol 14/6 Internal Med. June 60

3577. THE CO-EXISTENCE OF GASTRIC ANACIDITY AND VARIOUS DISEASES

- Współistnienie bezkwaśności żołądka z różnymi chorobami - ~~Domo-~~  
slawski Z. and Surowiakowa M. III Klin. Chor. Wewn. A.M.,

Wrocław - PRZEGL. LEK. 1959, 15/4 (103-106 and 128) Graphs 3 Tables 1

Examinations of 1,867 patients treated for diseases of the alimentary tract during the last 5 yr. (25.4% of the total number of patients) were analysed. Cases with histamine-resistant anacidity were taken separately. There were 187 cases of this nature, i.e. 10% of patients with diseases of the alimentary tract in whom the gastric contents were examined. The correlation of the data recorded to various diseases and to age is represented in graphs. (1) The frequency of histamine-resistant anacidity rose with age and reached its peak in the 6th decade of life in both sexes. (2) Anacidity appeared most frequently and earliest in the course of gastric catarrh; at more advanced ages and in smaller numbers of cases diseases of the biliary ducts, pernicious anaemia and carcinoma of the stomach were found. (3) Histamine-resistant anacidity appeared in pernicious anaemia as an obligatory sign, but it was seen in almost half the cases of gastric carcinoma, in 15% of gastritis cases, in over 6% of ulcers and gallbladder disorders. (4) Gastric carcinoma constitutes almost 50% of gastric catarrhs over the age of 60, and 11% of all cases of anacidity.

DOMOSLANSKI, Zbigniew  
SURNAME, Given Names

(4)

Country: Poland

Academic Degrees: Not given

Affiliation: Third Internal Disease Clinic (III Klinika Chorob Wewnętrznych),  
School of Medicine (AM, Akademia Medyczna), Wrocław; Director:  
Prof. E. SZCZEKLIK, Dr.; Director of Division B (now Nephrology  
Source: Clinic): Prof. Z. WIKTOR, Dr.

Source: Warsaw, Przegląd Lekarski, Vol XVII, Ser II, No 8, 1961, pp 298-  
300.

Data: "Double Gallbladder."

194

870 981643

DEMOSLAWSKI, Zbigniew

SURNAME, Given Names

Country: Poland

Academic Degrees: /not given/

Affiliation: Internal Diseases Ward of the Municipal Hospital (Oddzial Chorob Wewnetrznych, Szpital Miejski), Jelenia Gora; Director (Dyrektor): Dr Med T Rolski

Source: Krakow, Przegląd Lekarski, Vol XVII, Ser II, No 9, 1961, pp 345-347

Data: "Pain in the Joints in a Case of Pulmonary Carcinoma Complicated by Tuberculosis."

670 981643